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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,717	05/24/2004	Daniel Man-Tung Wong	13004-US-PA	3716

31561 7590 12/19/2006  
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER

DO, AN H

ART UNIT PAPER NUMBER

2853

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/709,717

Applicant(s)

WONG ET AL.

Examiner

An H. Do

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The Amendment filed on 15 November 2006 has been acknowledged.

#### ***Election/Restrictions***

1. Applicant has previously indicated the cancellation of non-elected claims 6-17 in Response filed on 13 April 2006. However, by this Amendment, Applicant improperly indicated the status of claims 6-17 as "Withdrawn." In Response to this Final Office Action, Applicant is required to confirm that claims 6-17 has been cancelled without prejudice as filed in Response on 13 April 2006.
2. This application contains claims 6-17 drawn to an invention nonelected with traverse in Response filed 13 April 2006. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverbrook (US 6,274,056).

Silverbrook discloses the following claimed features:

Regarding claim 1, a fluid ejection device (Figures 1-3) suitable for an ink-jet printer, comprising: a substrate (Figure 3, elements 15, 16) having an orifice (4); a beam

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(2), disposed over the substrate (15, 16), the beam (2) having a fixed portion (right portion) and a cantilever portion (Figure 2, left portion of beading beam 2), wherein the cantilever portion is disposed over the orifice (4); an activation pad (17), disposed between the cantilever portion of the beam and the substrate (15, 16), wherein the activation pad (17) is disposed apart from the beam (Figure 3 shows the beam 2 being separated by layer 17); and a stopper (stiffener 9), disposed on the cantilever portion of the beam (2), wherein the stopper (stiffener 9) is aligned to the orifice (4) of the substrate (Figures 2 and 3).

Regarding claim 3, wherein a dimension of the stopper (stiffener 9) is larger than that of the orifice (Figure 3 shows stiffener 9 is larger than the nozzle 4).

Regarding claim 4, wherein the fixed portion of the beam (2) is a collar structure disposed on the substrate (15, 16) for supporting the cantilever portion (Figure 3).

Regarding claim 5, further comprising an encapsulation structure (20) covering the substrate (15, 16) for encapsulating the beam (2) and the activation pad (Figure 3).

Regarding claims 18-20, wherein when a voltage is applied to the activation pad (since element is a circuitry layer), the cantilever portion of the beam (2) is pulled down from an initial position toward the orifice (4) of the substrate for ejecting the fluid out of the orifice (Figures 2 and 3); and wherein when the voltage applied to the activation pad (17) is removed, the cantilever portion of the beam (2) gradually moves away from the orifice (4) (Figure 1).

### ***Response to Arguments***

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5. Applicant's arguments filed 15 November 2006 have been fully considered but they are not persuasive. Applicant argued that Silverbrook failed to show a stopper, disposed on the cantilever portion of the beam and aligned to the orifice of the substrate. However, this argument is not found persuasive for the reason that the stiffener (9) as disclosed in Silverbrook is the same or equivalent to the claimed "stopper" and the stiffener (9) is disposed on the cantilever portion (left portion) of the beam (2) and is aligned to the orifice (4) as shown in Figures 2 and 3). Therefore, Silverbrook teaches the claimed invention as discussed above.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An H. Do whose telephone number is 571-272-2143. The examiner can normally be reached on Monday-Friday (Flexible).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AD  
December 15, 2006



An H. Do  
Primary Examiner  
Art Unit 2853